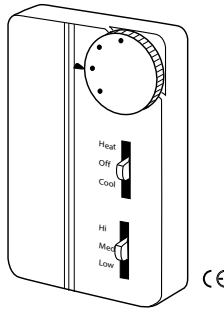


Non-digital thermostat



Application

The non-digital thermostat provides on/off control for low voltage and line voltage valves, relays and fan motors.



Features

- Manual or automatic changeover models
- Line voltage 3-speed fan control
- Continuous or cycling fan operation (cycling fan operation requires additional relay or relays)
- Remote sensor capability for seasonal changeover
- Handles all supply voltages from 24 to 277 Vac at 50/60 Hz (fan and system voltage must be the same)

Theory of operation

All non-digital models are electronic thermostats. A variable resistance device called a thermistor senses the room temperature and sends a resistance value to the thermostat. For example: in heat mode, the thermostat measures the temperature represented by the resistance value of the onboard thermistor (or remote thermistor if used). If the sensed temperature value drops 1 °F (0.6 °C) or more below the set point the heating output will be powered. A valve or damper opens to heat the space. When the temperature reaches the set point the heating output will be turned off, closing the valve or damper. The thermostats maintain temperatures with a 1 °F (0.6 °C) differential in both heating and cooling.

Specifications

Inputs

- Power input: 24 to 277 Vac @ 50/60 Hz
- Power consumption: 0.88 watts at maximum
- Connections
 - Power: up to 14 AWG wire
 - Control: Up to 14 AWG wire

Outputs

- Electrical; heat/cool output rating: Pilot duty, 10 VA at 24 Vac, 20 VA at 120-277 Vac
- Fan switch: Refer to Table 1

Control

- Deadband: 4 °F (2.2 °C)
Auto changeover models only
- Operating differential: 1 °F (0.6 °C)
- Setpoint adjustment range: 50 to 90 °F

Enclosure

- Material: Rigid vinyl
- Finish: Cool gray

Environment

- **Temperature limits**
 - Shipping and storage: -30 to 130 °F (-34 to 55 °C)
 - Operating: 32 to 130 °F (0 to 55 °C)
- Shipping weight: 0.31 lbs. (140 g.)
- Location: NEMA type 1

Agency listings

- CE: Compliant

Table 1: Fan switch current ratings (amps)^a

Voltage	Inductive		Resistive amps	Pilot duty
	FLA	LRA		
24	N/A	N/A	N/A	24 VA
120	5.8	34.8	6.0	125 VA
240	2.9	17.4	5.0	125 VA
277	2.4	14.4	4.2	125 VA

^a Fan and system must share the same voltage

Table 2: Model chart

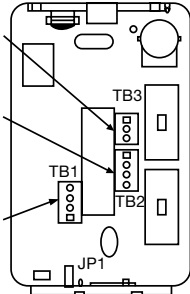
Model	Outputs	Changeover	Fan control	System switches
11100000180A	Dual	Manual	High-medium-low	Heat-off-cool
11100000181A	Dual	Automatic ^a	High-medium-low	On-off
11100000182A	Single	N/A	High-medium-low	On-off

^a Automatic changeover models have a 4 °F deadband between heating and cooling

Terminal description

Connections

- Terminal block 3
- 1 Heat
 - 2 Cool
 - 3 Sw'd power
- Terminal block 2
- 1 L1
 - 2 High
 - 3 Med
 - 4 Low
 - 5 Fan hot
- Terminal block 1
- 4 L2 or neutral
 - 3 No connection
 - 2 Remote sensor
 - 1 Remote sensor



Dimensional data

